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TITLE: Wave soldering process used in the production of printed circuit boards comprises using a **lead-free solder** having a lower melting point than a usual **tin**-lead solder, and a fluxing agent having no-clean properties

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PATENT-FAMILY:

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DE 10117404 A1	October 17, 2002	N/A	005	B23K 001/00

APPLICATION-DATA:

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INT-CL (IPC): B23K001/00

ABSTRACTED-PUB-NO: DE 10117404A

BASIC-ABSTRACT:

NOVELTY - Wave soldering process comprises using a **lead-free solder** having a lower melting point than a usual **tin**-lead solder, and a fluxing agent having no-clean properties.

DETAILED DESCRIPTION - Preferred Features: The **lead-free solder** is an alloy containing **tin and bismuth** as the main components containing 30-60, preferably 50-60% **bismuth**. The alloy further contains alloying additions of 0-4% **silver**, 0-4% antimony, 0-2% indium, 0-0.01% **phosphorus** and/or 0-0.2% nickel. The fluxing agent is ethanol or isopropanol with additions of carboxylic acid and/or dicarboxylic acid.

USE - Used in the production of printed circuit boards.

ADVANTAGE - An additional cleaning step is nor required.

CHOSEN- Dwg.0/3
DRAWING:

TITLE- WAVE SOLDER PROCESS PRODUCE PRINT CIRCUIT BOARD
TERMS: COMPRISE LEAD FREE SOLDER LOWER MELT POINT USUAL
TIN LEAD SOLDER FLUX AGENT NO CLEAN PROPERTIES

DERWENT-CLASS: L03 M23 M26 P55 V04 X24

CPI- L03-H04E6; M23-A01; M26-B04; M26-B04A; M26-B04B; M26-B04J;
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